ABSTRACT

OPTIMAL CODE GENERATION FOR STRUCTURED ASSEMBLY LANGUAGE EXPRESSIONS

5

An optimal code generator for generating structured assembly language expressions is disclosed. Because of the equivalence between unit structured assembly language expressions and the code implementing them, it is possible to represent complex structured assembly language expressions as a vector of unit structured assembly language expressions. A set of rules for systematic manipulation is utilize to allow logical operations on the vector representation of structured assembly language expressions to result in optimal code. Using the equivalence between the code and unit structured assembly language expressions allows the vector representation of a structured assembly language expression to be translated directly into code.

10